

WHAT IS CLAIMED IS:

1. An infrared photosensitive composition comprising:
a binder polymer (A), a polymerizable compound (B), an infrared absorber (C), and a compound (D) which can generate radicals by the action of light or heat,

wherein an acid value of a film produced from the composition is from 0.15 mmol/g to 0.8 mmol/g.
2. The infrared photosensitive composition according to claim 1, wherein the binder polymer (A) is a polymer having a radical polymerizable group.
3. The infrared photosensitive composition according to claim 1, wherein the content of the radical polymerizable group in the binder polymer (A) is from 0.1 to 10.0 mmol per gram of the polymer.
4. The infrared photosensitive composition according to claim 1, wherein the binder polymer (A) is a linear organic polymer having an alkali soluble group.
5. The infrared photosensitive composition according to claim 1, wherein the binder polymer (A) has a glass transition point (Tg) of 70 to 300°C.
6. The infrared photosensitive composition according to claim 1,

wherein the binder polymer (A) is contained in a proportion of 20 to 95% by mass relative to total solid contents in the infrared photosensitive composition.

7. The infrared photosensitive composition according to claim 1, wherein the polymerizable compound (B) has at least one ethylenically unsaturated double bond.

8. The infrared photosensitive composition according to claim 1, wherein the polymerizable compound (B) is an ester made from an unsaturated carboxylic acid and an aliphatic polyhydric alcohol compound, or is an amide made from an unsaturated carboxylic acid and an aliphatic polyhydric amine compound.

9. The infrared photosensitive composition according to claim 8, wherein the ester made from the unsaturated carboxylic acid and the aliphatic polyhydric alcohol compound is selected from the group consisting of acrylic esters, methacrylic esters, itaconic esters, crotonic esters, isocrotonic esters, and maleic esters.

10. The infrared photosensitive composition according to claim 8, wherein the amide made from the unsaturated carboxylic acid and the aliphatic polyhydric amine compound is selected from the group consisting of methylenebis-acrylamide, methylenebis-methacrylamide, 1,6-hexamethylenebis-acrylamide, 1,6-hexamethylenebis-

methacrylamide, diethylenetriaminetrisacrylamide,
xylylenebisacrylamide, and xylylenebismethacrylamide.

11. The infrared photosensitive composition according to claim 7,
wherein the polymerizable compound (B) is contained in a proportion of 5
to 80% by mass relative to all components in the infrared photosensitive
composition.

12. The infrared photosensitive composition according to claim 1,
wherein the infrared absorber (C) is a dye or a pigment having an
absorption maximum within the range of wavelengths of 760 to 1,200
nm.

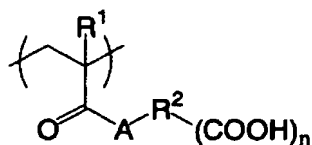
13. The infrared photosensitive composition according to claim 12,
wherein the dye is selected from the group consisting of azo dyes, metal
complex salt azo dyes, pyrazolone azo dyes, naphthoquinone dyes,
anthraquinone dyes, phthalocyanine dyes, carbonium dyes,
quinoneimine dyes, methine dyes, cyanine dyes, squarylium dyes,
pyrylium salts, and metal thiolate complex dyes.

14. The infrared photosensitive composition according to claim 1,
wherein the binder polymer (A) has a meth(acryloyl) group as a side
chain.

15. The infrared photosensitive composition according to claim 1,

wherein the binder polymer (A) has at least one of an amide group or an imide group.

16. The infrared photosensitive composition according to claim 1, wherein the binder polymer (A) has a structural unit represented by the following formula (I):



Formula (I)

wherein R¹ represents a hydrogen atom or a methyl group; R² represents a linking group having 4 to 30 atoms selected from carbon, hydrogen, oxygen, nitrogen, sulfur and halogen; A represents an oxygen atom or -N-R³-, in which R³ represents a hydrogen atom or a monovalent hydrocarbon group having 1 to 10 carbon atoms; and n represents an integer of 1 to 3.

17. The infrared photosensitive composition according to claim 1, wherein the compound (D) which can generate radicals by the action of light or heat is an onium salt selected from the group consisting of iodonium salts, diazonium salts and sulfonium salts.

18. The infrared photosensitive composition according to claim 17, wherein the maximum absorption wavelength of the onium salt is 400 nm or less.

19. The infrared photosensitive composition according to claim 17, wherein the onium salt is contained in a proportion of 0.1 to 50% by mass relative to total solid contents in the infrared photosensitive composition.

20. A planographic printing plate precursor comprising a substrate having disposed thereon a recording layer that contains an infrared photosensitive composition including: a binder polymer (A), a polymerizable compound (B), an infrared absorber (C), and a compound (D) which can generate radicals by the action of light or heat, wherein an acid value of a film produced from the composition is from 0.15 mmol/g to 0.8 mmol/g.